AMENDMENTS TO THE DRAWINGS

Attached please find Replacement Sheet Figure 6. An annotated sheet is also provided.

REMARKS

Claims 1-81 were examined. Claims 1-10, 18-23, 34, 36-46, 64-72, and 77-81 were rejected. Claims 11-17, 24-33, 35, 47-63, and 73-76 were objected to. Applicants neither add nor cancel any claims. Applicants amend claims 1, 30, 44, 64 and 80. Applicants also amend the title; the specification to correct instances of typographical errors, and provide replacement Figure 6. Applicants assert that no new matter is added herein. Applicants respectfully request reconsideration of claims 1-81 in view of at least the following remarks.

I. Specification

The Patent Office objects to the title as not descriptive of the invention to which the claims are directed. Applicants amend the title to be clearly descriptive of the invention to which the claims are directed, and respectfully request the Patent Office withdraw the objection to the title.

II. Claims Rejected Under 35 U.S.C. § 102

Claims 1-10, 18, 19, 21, 23, 34, 36-37, 39-46, 64, 70-72, and 78-81 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,353,654 to Granfors et al. (Granfors). It is axiomatic that to be anticipated, every limitation of a claim must be disclosed in a single reference.

Applicants respectfully disagree with the rejection above and submit that independent claim 1 is patentable over the cited reference for at least the reason that Granfors does not disclose estimating an excess signal based on a non-linear decay response model of a measured signal of an imager frame, as required by claim 1.

Granfors discloses compensating for a retained image using quantity of "q + 2" frames between the end of a first exposure and the beginning of a second exposure to predict response "d" of the imager using a least squares method to model the response with a "vector" (e.g., see equation 5 of Granfors and column 7, lines 48-54) to provide a linear combination of predicted outputs to model each pixel as a linear, time-invariant system whose response "H(z)" is unknown (see Granfors col. 6, lines 45-50; col. 7, lines

5-20, 32-63). Specifically, Granfors uses the vector model to obtain a first predicted output of the system, and a second predicted output can be predicted using the first predicted output as the last input value for the linear vector model, or by a linear combination of the first predicted output and the last input value used (see Granfors, col. 7, lines 48 through col. 8, line 3). Thus, Granfors discloses a linear modeling of the pixels and predicting the output based on that linear combination (see paragraph 7, lines 60 through col. 8, line 6).

Consequently, the Patent Office has not identified and Applicants are unable to identify any disclosure in Granfors that provides for estimating an excess signal based on a non-linear decay response model of a measured signal, as required by claim 1. Hence, for at least this reason, Applicants respectfully request the Patent Office withdraw the rejection of claim 1 above.

Dependent claims 2-10, 18-19, 21, 23, 34, 36, 37-39, and 44-46, being dependent upon allowable base claim 1, are patentable over the cited references for at least the reasons stated above. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for dependent claims 2-10, 18-19, 21, 23, 34, 36, 37-39, and 44-46.

The Patent Office rejects claims 64, 70-72, 78-79, 80 and 81 under 35 U.S.C. § 102(e) as being anticipated by Granfors.

Applicants respectfully disagree with the rejection above and submits that independent claim 64 is patentable over Granfors for at least the reason that Granfors does not disclose compensating for an excess signal based on a non-linear decay response model and a frame rate, as required by claim 64.

First, an argument analogous to the one above for claim 1 and the limitation of a non-linear decay response model applies here as well. Thus, for at least this first reason, Applicants respectfully request the Patent Office withdraw the rejection above for independent claim 64.

Second, as noted above for claim 1, Granfors discloses using a quantity of $q + 2$ frames of its γ frames without radiation between the end of the first exposure and the

beginning of a subsequent exposure (see col. 7, lines 35 through col. 8, line 6). Specifically, Granfors uses a least squares method analysis of pixel values at sequential sampling intervals of a finite data sequence of interim period 94 (see col. 6, lines 25-56; col. 7, lines 33-36) to linearly model a vector to predict outputs of q + 1 of the q + 2 frames, and provides a linear combination of predicted outputs (see col. 7).

Consequently, the Patent Office has not identified and Applicants are unable to find any disclosure in Granfors that accounts for compensating for an excess signal based on a non-linear decay response model and a frame rate. Specifically, the Patent Office has not identified and Applicants are unable to find any indication that the rate of frames is considered in Granfors as a factor in modeling on predicting output. Hence, for at least this additional reason, Applicants respectfully request the Patent Office withdraw the rejection above of claim 64.

Dependent claims 70-72, being dependent upon allowable base claim 64, are patentable over the cited references for at least the reasons stated above. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for dependent claims 70-72.

Also, dependent claims 78-79 being dependent upon allowable base claim 64, are patentable over the cited references for at least the reasons stated above. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for dependent claims 78-79.

Analogous arguments to the ones above for claim 64 apply to claim 80 as well. Specifically, claim 80 requires compensating for an excess signal based on a non-linear decay response model and a frame rate at which an imager is operating. However, the Patent Office has not identified and Applicants are unable to find any disclosure in Granfors that accounts for either of these limitations. Hence, for at least these reason, Applicants respectfully request the Patent Office withdraw the rejection of claim 80 above.

Dependent claims 81 being dependent upon allowable base claim 80, are patentable over the cited references for at least the reasons stated above. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for dependent claims 81

III. Claims Rejected Under 35 U.S.C. § 103

The Patent Office rejects claims 20, 22, 38, 65-69, and 77 under 35 U.S.C. § 103(a) as being unpatentable over Granfors.

Dependent claims 20, 22, and 38 being dependent upon allowable base claim 1, are patentable over the cited references for at least the reasons stated above. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for dependent claims 20, 22, and 38.

Dependent claims 65-69 and 77 being dependent upon allowable base claim 64, are patentable over the cited references for at least the reasons stated above. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for dependent claims 65-69 and 77.

In addition to the reasons above, Applicants disagree with the rejection above of claims 20-22 for at least the reason that Applicants traverse that it is well known to use a non-saturated exposed image frame as a second reference image of two reference images, and request that the Patent Office cite a reference in support of that position in accordance with MPEP § 2144.03. Hence, for at least this additional reason, Applicants respectfully request the Patent Office withdraw the rejection above of claims 20 and 22.

In addition to the reasons above, Applicants disagree with the rejection of claims 38 and 77 for at least the reason that Applicants traverse that it would have been obvious to a person of ordinary skill in the art to compensate with frame rates faster than 1/10 of a frame per second when compensating for an excess signal based on frame rate, and requests the Patent Office cite a reference in support of that position in accordance with MPEP §2144.03. Hence, for at least this addition reason, Applicants respectfully request the Patent Office withdraw the rejection above of claims 38 and 77.

IV. Allowable Subject Matter

Although Applicants argue the claims above, Applicants note with appreciation the Patent Office's indication that claims 11-16, 23-33, 35, 47-63, and 73-76 are objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all the limitations of base claim and any intervening claims.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance, and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17. If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 1/17/2006

Angelo J. Gaz, Reg. No. 45,907

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025
Telephone (310) 207-3800
Facsimile (310) 820-5988

CERTIFICATE OF FACSIMILE
I hereby certify that this correspondence is being transmitted via facsimile on the date shown below to the United States Patent and Trademark Office.

Nedy Calderon 1/17/06
Nedy Calderon Date

ANNOTATED SHEET

$$\text{INTEGRATION TIME } (Ti) = \frac{1}{\text{FRAME RATE}}$$

FRAME RATE (FPS)	INTEGRATION TIME (SEC)
0.1	10
1	1
30	0.033
100	0.01

FIG. 6

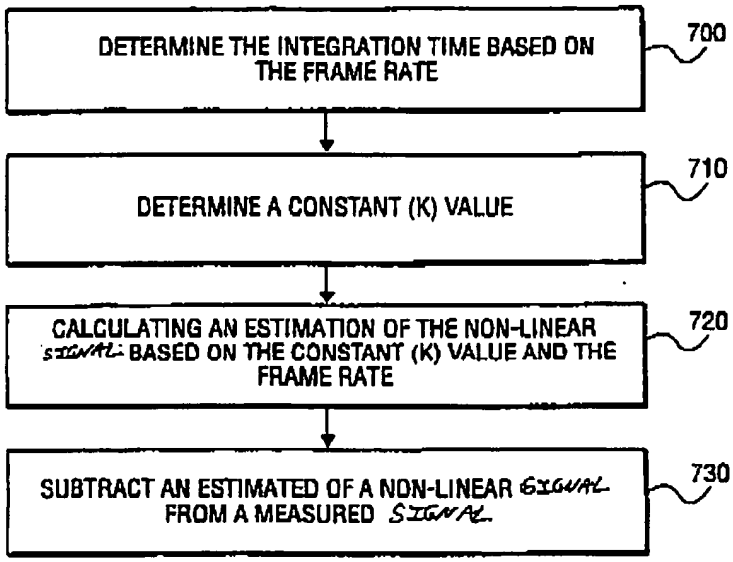

FIG. 7